



Tax Policy & Research
Sam W. Mitchell Building

Montana Department of
REVENUE

P. O. Box 5805
Helena, Montana 59604-5805

DATE: October 4, 2001

TO: Governor's K-12 Public School Funding Advisory Council

FROM: Dan Dodds, Tax Policy Analyst

RE: Guaranteed Tax Base Aid for Over-BASE spending

At its September 4 meeting, the council asked what it would cost to provide guaranteed tax base aid to school districts for over-BASE spending and how it would affect disparities in tax effort.

Background

Guaranteed tax base aid (GTBA) guarantees each district a minimum amount of revenue from each mill it levies, even if levying a mill on the district's actual tax base will produce less revenue. GTBA is paid to districts as a subsidy per mill. This subsidy is calculated in three steps. The first is calculation of the statewide guaranteed tax base ratio (GTBR). The GTBR is calculated by dividing the sum of districts' tax bases by the sum of districts' GTBA budget areas and then multiplying the result by the guarantee percentage. The GTBA budget area is the portion of a district's budget where property taxes levied to fund part or all of that portion of the budget are supported by GTBA. For the existing GTBA program, it is the district's BASE budget less its direct state aid and state special education funding. The guarantee percentage for the existing GTBA program for the BASE budget is 175%.

The second step is determination of the district's guaranteed tax base by multiplying the statewide GTBR by the district's GTBA budget area.

The final step is calculation of the subsidy per mill. If the district's guaranteed tax base is greater than its actual tax base, its subsidy per mill is calculated by subtracting the district's actual tax base from its guaranteed tax base and dividing the difference by 1,000. If the district's actual tax base is greater than its guaranteed tax base, it does not receive GTBA.

GTBA is calculated separately for elementary and high school districts. K-12 districts have the elementary GTBA formula applied to their elementary budgets and the high school formula applied to their high school budgets.

Table 1 shows the calculation of the subsidy per mill for a hypothetical elementary district with the existing GTBA program.

Table 1 GTBA Calculation for Hypothetical Elementary District	
State Total Elementary District Tax Base	\$1,651,311,035
/ State Total Elementary GTBA Budget Area	<u>\$163,225,168</u>
= Tax Base/GTBA Budget Area	10.12
Tax Base/GTBA Budget Area	10.12
x Guarantee Percentage	<u>175%</u>
= Guaranteed Tax Base Ratio (GTBR)	17.70
District GTBA Budget Area	\$1,000,000
x GTBR	<u>17.70</u>
= District Guaranteed Tax Base	\$17,700,000
District Guaranteed Tax Base	\$17,700,000
- District Tax Base	<u>\$10,000,000</u>
= Guaranteed Tax Base Above Actual	\$7,700,000
GTBA Subsidy per Mill	<u><u>\$7,700</u></u>

Methodology

An over-BASE GTBA program could have a variety of guarantee percentages and GTBA budget areas. The council asked for analysis of guarantee percentages of 100%, 150%, and 175%.

This memo examines three options for local over-BASE GTBA budget areas:

- Difference between maximum and BASE budgets;
- Difference between maximum and BASE budgets, less any non-levy revenue and other funds currently being used to fund over-BASE budgets; and
- Difference between maximum and BASE budgets, less funds currently used to fund over-BASE budgets and 75% of federal impact aid.

The first option is similar to the existing GTBA program for BASE budgets. It uses the difference between the maximum and BASE budgets as the GTBA budget area. It ignores the fact that some districts have revenue other than local property taxes to apply to over-BASE spending.

The second option takes local over-BASE funds into account. A few districts have more local funds than they need to fund their BASE budgets. The total of these funds

for the 2000-2001 school year for all districts is \$2.881 million. Most districts must fund their over-BASE budgets entirely with local property taxes.

The third option also takes into account the part of federal impact aid that typically is spent on general education costs. The total of federal impact aid received by all school districts was \$33.9 million in the 1999-2000 school year. Federal impact aid can be used for any school district expenditures. Impact aid used for general education costs is budgeted separately from school districts' general funds even though it is used for the same purposes. If school districts did not receive federal impact aid, they would have to increase their mill levies to keep the same total spending levels. On average, about 75% the property taxes school districts levy are for their general funds and 25% are for other funds, such as student transportation. Thus, 75% of federal impact aid, or \$25 million, pays for general education costs that otherwise would have to be paid from the district's general fund. Including federal impact aid used for general education costs in school districts' over-BASE budgets would reduce GTBA and local property taxes for over-BASE budgets.

Federal impact aid imposes a number of requirements on the school budgeting process. One requirement is that a school district's state funding cannot be reduced because it receives federal impact aid. The U.S. Department of Education would have to approve any over-BASE GTBA formula that took federal impact aid into account. At a minimum, this would require structuring the program in a way where subtracting a part of impact aid from a district's over-BASE GTBA budget area would not be seen as reducing its state funding.

For all three options, the statewide guaranteed tax base ratio was calculated using the difference between maximum and BASE budgets. This makes each district's GTBA depend on its tax base and its other resources. If other funds available for over-BASE spending were included in the statewide GTBR calculation, each district's GTBA would depend on its own tax base and other resources and other districts' non-property tax resources.

There are two reasons for taking non-property tax resources into account in the GTBA calculation; to give less GTBA to districts that have non-property tax resources to spend on the GTBA budget area and to reduce the cost to the state. Subtracting a district's non-property tax resources from its GTBA budget area reduces that district's GTBA and the state's cost. Subtracting non-property tax resources from the statewide GTBA budget area would increase the statewide GTBR. This would increase GTBA for all districts and increase the state's cost.

School districts can choose how much to spend above their BASE budgets. If GTBA were provided for over-BASE spending, it is likely that some districts would increase their over-BASE spending, but it is impossible to know by how much. This memo looks at the cost of over-BASE GTBA for districts' current over-BASE budgets and their maximum budgets. The total amount that districts budgeted over-BASE for the 2000-

2001 school year is \$98.4 million. The difference between the total of all maximum budgets and the total of all BASE budgets is \$140.1 million.

The cost to the state of over-BASE GTBA was calculated for 18 different scenarios, combining the three guarantee percentages, the three options of GTBA budget areas, and the two spending levels.

Changes in local tax effort are measured by comparing the mills required to fund the maximum budget with over-BASE GTBA and the mills required to fund the maximum budget today.

Results - Cost

Table 2 shows the cost to the state of providing over-BASE GTBA at current budget levels, for the three GTBA budget area options and the three guarantee percentages. The third column show the cost to the state of each combination of GTBA budget area, shown in the first column, and guarantee percentage, shown in the second column. For example, the state cost is \$14.368 million for a 100% guarantee percentage and a GTBA budget area equal to the difference between the maximum and BASE budgets.

Table 2 State Cost of Over-BASE GTBA Current School District Budgets		
Over-BASE GTBA Budget Area	Guarantee %	State Cost (\$million)
MAX - BASE	100%	\$14.386
	150%	\$36.409
	175%	\$44.339
MAX - BASE - Local Over-BASE Funds	100%	\$14.314
	150%	\$36.281
	175%	\$44.179
MAX - BASE - Local Over-BASE Funds - 75% Impact Aid	100%	\$10.750
	150%	\$28.804
	175%	\$34.868

Taking local resources available to fund over-BASE spending into account reduces the state cost slightly. At the 100% guarantee percentage, taking local resources into account reduces the state cost from \$14.368 million to \$14.314 million. Taking federal impact aid into account reduces the state cost \$3.564 million, to \$10.750 million at the 100% guarantee level.

Increasing the guarantee percentage from 100% to 150% greatly increases the state cost. With the GTBA area equal to the total difference between maximum and BASE

budgets, the state cost is \$14.368 million with a 100% guarantee percentage and \$36.409 million with a 150% guarantee percentage. Increasing the guarantee percentage from 150% to 175% further increases the state cost to \$44.339 million. Increasing the guarantee percentage increases the state cost because it increases the number of districts receiving GTBA and increases the amount of GTBA going to each district receiving it.

Many districts probably would increase their over-BASE budgets if there were over-BASE GTBA. Thus, the actual cost to the state would be higher than shown in Table 2. Table 3 shows the state cost of over-BASE GTBA if all districts budgeted at their maximum.

Table 3 State Cost of Over-BASE GTBA School District Maximum Budgets		
<u>Over-BASE GTBA Budget Area</u>	<u>Guarantee %</u>	<u>State Cost (\$million)</u>
MAX - BASE	100%	\$32.752
	150%	\$70.838
	175%	\$84.202
MAX - BASE - Local Over-BASE Funds	100%	\$32.731
	150%	\$70.705
	175%	\$84.039
MAX - BASE - Local Over-BASE Funds - 75% Impact Aid	100%	\$17.587
	150%	\$45.974
	175%	\$55.751

In all cases, the state cost of over-BASE GTBA would be much greater if districts increased their budgets to their maximums. The cost of GTBA for maximum budgets ranges from 1.6 to 2.3 times the cost with current budgets.

Results - Equity

Local mills levied to pay for over-BASE spending reflect local spending decisions as well as the local tax effort required to pay for over-BASE spending. Because of this, differences in actual over-BASE mills do not provide a good picture of differences in over-BASE tax effort. For example, some districts levy no over-BASE mills because they budget at their BASE level, while a few districts levy no over-BASE mills because, under the current system, they can fund their maximum budgets with non-levy revenue and state funds.

Mills required to fund the difference between districts' maximum budgets and their BASE budgets is a measure of over-BASE tax effort that does not depend on local spending decisions. Table 4 compares this measure of tax effort with the existing school funding system and tax effort with three levels of over-BASE GTBA. The first column shows the guarantee percentage, and the three pairs of columns show the highest and lowest mills for elementary, high school and K-12 districts. It shows the highest mills under the current system for all districts and for districts that do not receive federal impact aid.

Going from no over-BASE GTBA to the 100% guarantee percentage reduces the highest mill levies dramatically. For elementary districts, the highest mill levy goes from 6842.3 mills (513.3 mills for districts with no impact aid) to 58.0 mills. Increasing the guarantee percentage to 150% and 175% further reduces the highest mill levy. For elementary districts, the highest levy is 38.6 mills with a 150% guarantee percentage and 33.1 mills with a 175% guarantee percentage.

Table 4 Highest and Lowest Mill Levies to Fund MAX Budget - BASE 2000-2001 School Year						
Guarantee Percentage	Elementary -----Districts-----		High School -----Districts-----		K-12 -----Districts-----	
	Highest	Lowest	Highest	Lowest	Highest	Lowest
Actual - All Districts	6842.3	0.0	2987.4	0.0	3281.4	0.0
Actual - No Impact Aid	513.3	0.0	134.3	0.0	245.6	0.0
100%	58.0	0.0	36.7	0.0	94.6	0.0
150%	38.6	0.0	24.5	0.0	63.1	0.0
175%	33.1	0.0	21.0	0.0	54.1	0.0

The lowest mill levies are not affected by the guarantee percentage. This is because the districts with the lowest mills would not receive over-BASE GTBA with any of these guarantee percentages.

Table 4 does not show the three options for the over-BASE GTBA budget area separately because the highest and lowest mill levies are virtually the same in the three cases. The districts with the lowest mills would not receive over-BASE GTBA in any of the scenarios, so their mill levies are the same. Mills for districts that would receive over-BASE GTBA are affected by whether local funds and federal impact aid are taken into account, but it happens that the highest mill levies are the same in all three cases.

GTBA reduces disparities in tax effort by reducing, and equalizing, mill levies for districts that have small tax bases relative to their GTBA budget areas. Districts that would receive over-BASE GTBA would have to levy about the same mills to fund the difference between their maximum and BASE budgets. Districts with large tax bases relative to their GTBA budget areas would not receive over-BASE GTBA. They would

need to levy fewer mills to fund the difference between their maximum and BASE budgets than districts that do receive over-BASE GTBA, and they would be spread over the range of mills between zero and the mills levied by districts receiving over-BASE GTBA.

The tax effort equalization produced by a GTBA program can be measured by the percentage of school districts that receive GTBA and have about the same mill levies. Table 5 shows the percentage of districts where the levy needed to fund the difference between the maximum and BASE budgets is within one mill of the highest levy. It shows this percentage for each combination of GTBA budget area and guarantee percentage, for elementary, high school, and K-12 districts.

The first row shows that, with no over-BASE GTBA, the percentage of districts within one mill of the highest is 0.4% for elementary districts, 0.9% for high school districts, and 1.8% for K-12 districts. This is 1 of the 283 elementary districts, 1 of the 110 high school districts, and 1 of the 55 K-12 districts. In other words, over-BASE mill levies are not equalized at all. With the over-BASE GTBA budget area equal to the difference between the maximum and BASE budgets and a 100% guarantee percentage, 39.1% of elementary districts are within a mill of the maximum, 55.5% are within a mill with a 150% guarantee percentage, and 61.6% are within a mill with a 175% guarantee percentage.

Table 5 Districts where Maximum Over-BASE Levy is Equalized by Over-BASE GTBA				
GTBA Budget Area	Guarantee %	Elementary Districts	High School Districts	K-12 Districts
No Over-BASE GTBA		0.4%	0.9%	1.8%
MAX Budget - BASE	100%	39.1%	55.5%	30.9%
	150%	55.5%	83.6%	49.1%
	175%	61.6%	88.2%	60.0%
MAX - BASE - Local Funds	100%	40.1%	58.2%	30.9%
	150%	57.0%	86.4%	50.9%
	175%	63.4%	90.9%	61.8%
MAX - BASE - Local Funds - 75% Impact Aid	100%	34.4%	46.4%	27.3%
	150%	50.2%	71.8%	45.5%
	175%	57.3%	77.3%	58.2%

In each case, the percentage of districts with equalized mill levies is higher for high school districts than for elementary districts or K-12 districts. At the 100% guarantee level with the over-BASE GTBA budget area equal to the difference between the maximum and BASE budgets, 39.1% of elementary districts, 55.5% of high school

districts and 30.9% of K-12 districts are within a mill of the highest levy for their type of district. K-12 districts are less equalized than the other types at the 100% and 150% guarantee percentages because their elementary and high school programs are budgeted separately, and some districts receive GTBA for one, but not the other.

Taking local funds available for over-BASE spending into account increases the percentage of districts with equalized mill levies. If these funds are not taken into account, districts that receive GTBA and have other funds available to apply to their over-BASE budgets can levy fewer mills than other districts that receive GTBA and must fund their over-BASE budgets entirely with local mill levies.

Taking federal impact aid into account reduces the percentage of districts with equalized over-BASE mill levies. This is because counting federal impact aid reduces the size of the over-BASE GTBA budget area for districts that receive it. Some districts that would receive GTBA if federal impact aid were not taken into account would not receive GTBA if impact aid were taken into account.

Conclusions

The scenarios for over-BASE GTBA examined here would require between \$11 million and \$84 million annually in additional state funding. The cost would be \$11 million if the guarantee percentage were set at 100%, local non-property tax funds and 75% of federal impact aid were subtracted from the over-BASE GTBA area, and all districts stayed with their current budgets. Ignoring local resources and federal impact aid would increase the cost by about \$3.5 million. Increasing the guarantee percentage to 175% would increase the cost by up to \$30 million. If school districts increased their budgets because over-BASE GTBA lowered the local cost of over-BASE spending, the additional cost could be \$40 million.

How much a district spends between its BASE and maximum budgets is a local decision. The number of mills a district levies to pay for its over-BASE budget depends on how much it budgets over-BASE, its local tax base, and whether its non-property tax revenue is more than it needs to fund its BASE budget. Over-BASE GTBA would reduce disparities in the tax effort required to fund over-BASE spending. Districts receiving over-BASE GTBA would have their over-BASE tax effort equalized. Districts of the same type receiving over-BASE GTBA all would need to levy approximately the same number of mills to fund the difference between their maximum and BASE budgets. The percentage of districts with equalized tax effort is increased by increasing the guarantee percentage.

Questions

The following questions relate to whether the council believes that over-BASE GTBA is desirable and how over-BASE GTBA should be structured. Over-BASE GTBA could have a significant cost to the state general fund. When it develops its final recommendations, the council will have to consider whether over-BASE GTBA is more important than other options that may also have a cost to the state general fund.

Question 1: Does the council believe that it is important to reduce disparities in the tax effort required to fund discretionary, over-BASE budgets?

Option A: Yes

Option B: No

Question 2: Does the council want to give further consideration to over-BASE GTBA as a way to reduce disparities in over-BASE tax effort?

Option A: Yes

Option B: No

Question 3: Should the over-BASE GTBA budget area be the difference between maximum and BASE budgets, or should other funds be taken into account?

Option A: The over-BASE GTBA budget area should be the difference between the maximum and BASE budgets.

Option B: The over-BASE GTBA budget area should be reduced to account for non-property tax funds available for over-BASE budgets and a portion of federal impact aid.

Question 4: What should be the over-BASE guarantee percentage?

Option A: 100%

Option B: 150%

Option C: 175%

Option D: Other